

CLASSIFICATION AND CORRELATION
OF
THE SOILS OF

**LA GRANGE COUNTY
INDIANA**

JULY 1978



U.S. DEPARTMENT OF AGRICULTURE
SOIL CONSERVATION SERVICE
MIDWEST TECHNICAL SERVICE CENTER
LINCOLN, NEBRASKA

UNITED STATES DEPARTMENT OF AGRICULTURE
Soil Conservation Service
Midwest Technical Service Center
Lincoln, Nebraska 68508

Classification and Correlation
of the Soils of
LaGrange County, Indiana

This correlation was prepared by Robert I. Turner in consultation with John Hillis, Party Leader, and Frank W. Sanders, State Correlator, during the week of April 3-7, 1978. The final correlation is based on the first draft of sections of the manuscript, field correlation, field sheets, correlation samples, some laboratory data, and interpretative information available with the standard series description for the series used in this county. The half tone positive mylars to which the field mapping was transferred are considered as the field sheets for this survey. Robert I. Turner participated in the progress field review on October 18-22, 1976. A draft of the final correlation was reviewed by the SCS and the cooperating agencies in Indiana before it was approved and distributed.

Head note for detailed soil legend symbols

The first capital letter is the initial one of the soil name. The lower case letter that follows separates mapping units having names that begin with the same letter, except that it does not separate sloping or eroded phases. The second capital letter indicates the class of slope. Symbols without a slope letter are those with a slope range of 0 to 2 percent or for miscellaneous areas which may have considerable range of slope. A final number of 2 or 3 in the symbol indicates that the soil is eroded or severely eroded, respectively.

SOIL CORRELATION OF
LAGRANGE COUNTY, INDIANA

Field symbols	Field mapping unit name	Publi- cation symbol	Approved mapping unit name
Ad	Adrian muck	Ad	Adrian muck
Am	Adrian muck, drained	Am	Adrian muck, drained
BaA, Bt	Blount silt loam, 0 to 3 percent slopes	BaA	Blount silt loam, 0 to 3 percent slopes
BoA, FoA	Boyer loamy sand, 0 to 2 percent slopes	BoA	Boyer loamy sand, 0 to 2 percent slopes
BoB, FoB, FoB2	Boyer loamy sand, 2 to 6 percent slopes	BoB	Boyer loamy sand, 2 to 6 percent slopes
BoC, BoC2, FoC2, FxC3	Boyer loamy sand, 6 to 12 percent slopes	BoC	Boyer loamy sand, 6 to 12 percent slopes
BoD, BoD2, FoD2, FxD3	Boyer loamy sand, 12 to 18 percent slopes	BoD	Boyer loamy sand, 12 to 18 percent slopes
Bp	Brady sandy loam	Bp	Brady sandy loam
BtA, BSA	Brems sand, 0 to 3 percent slopes	BtA	Brems sand, 0 to 3 percent slopes
BxA	Bronson sandy loam, 0 to 3 percent slopes	BxA	Bronson sandy loam, 0 to 3 percent slopes
ChB, ChA	Chelsea sand, 1 to 6 percent slopes	ChB	Chelsea fine sand, 1 to 6 percent slopes
ChC	Chelsea sand, 6 to 12 percent slopes	ChC	Chelsea fine sand, 6 to 12 percent slopes
CrA, AuA, Au	Conover loam, 0 to 3 percent slopes	CrA	Conover loam, 0 to 3 percent slopes
Ed, EW	Edwards muck	Ed	Edwards muck
Gf, Gm	Gilford sandy loam	Gf	Gilford sandy loam
Gr, Md, Td	Granby loamy fine sand	Gr	Granby loamy fine sand
HaA, Ha	Haskins loam, 0 to 3 percent slopes	HaA	Haskins loam, 0 to 3 percent slopes

LAGRANGE COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publi- cation symbol	Approved mapping unit name
HdA, FSA	Hillsdale sandy loam, 0 to 2 percent slopes	HdA	Hillsdale sandy loam, 0 to 2 percent slopes
HdB, FSB	Hillsdale sandy loam, 2 to 6 percent slopes	HdB	Hillsdale sandy loam, 2 to 6 percent slopes
HdC, HdC2, FSC2	Hillsdale sandy loam, 6 to 12 percent slopes	HdC	Hillsdale sandy loam, 6 to 12 percent slopes
Ho	Homer sandy loam	Ho	Homer sandy loam
Ht, Hp	Houghton muck	Ht	Houghton muck
HW, Hu	Houghton muck, drained	HW	Houghton muck, drained
Hx, Ma, Mb	Houghton muck, ponded	Hx	Houghton muck, ponded
MbB, MbA, MbB2, MCA, MCB2	Martinsville sandy loam, 1 to 6 percent slopes	MbB	Martinsville sandy loam, 1 to 6 percent slopes
Mc, Ma	Martisco muck	Mc	Martisco muck
MeB, MeA	Metea loamy sand, 2 to 6 percent slopes	MeB	Metea loamy sand, 2 to 6 percent slopes
MeC	Metea loamy sand, 6 to 12 percent slopes	MeC	Metea loamy sand, 6 to 12 percent slopes
MoB2	Morley loam, 2 to 6 percent slopes, eroded	MoB2	Morley loam, 2 to 6 percent slopes, eroded
MoC2	Morley loam, 6 to 14 percent slopes, eroded	MoC2	Morley loam, 6 to 14, percent slopes, eroded
NaA, NaB2	Nappanee silt loam, 0 to 3 percent slopes	NaA	Nappanee silt loam, 0 to 3 percent slopes
OSA	Oshtemo loamy sand, 0 to 2 percent slopes	OSA	Oshtemo loamy sand, 0 to 2 percent slopes

LAGFANGE COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publi- cation symbol	Approved mapping unit name
OsB	Oshtemo loamy sand, 2 to 6 percent slopes	OsB	Oshtemo loamy sand, 2 to 6 percent slopes
OsC, OsC2	Oshtemo loamy sand, 6 to 12 percent slopes	OsC	Oshtemo loamy sand, 6 to 12 percent slopes
OsD, OsD2	Oshtemo loamy sand, 12 to 18 percent slopes	OsD	Oshtemo loamy sand, 12 to 18 percent slopes
OsE, OsE2	Oshtemo loamy sand, 18 to 25 percent slopes	OsE	Oshtemo loamy sand, 18 to 25 percent slopes
CuB	Oshtemo-Hillsdale- Chelsea complex, 3 to 6 percent slopes	OuB	Oshtemo-Hillsdale- Chelsea complex, 3 to 6 percent slopes
CuC, CuC2, OtC2	Oshtemo-Hillsdale- Chelsea complex, 6 to 12 percent slopes	OuC	Oshtemo-Hillsdale- Chelsea complex, 6 to 12 percent slopes
Pm, Pa	Palms muck, drained	Pm	Palms muck, drained
PrA, PrB	Parr loam, 0 to 2 percent slopes	PrA	Parr loam, 0 to 2 percent slopes
Pt, Pw	Pewamo silty clay loam	Pt	Pewamo silty clay loam
Pv, Gp	Pits, gravel	Pv	Pits, gravel
PxB	Plainfield sand, 2 to 6 percent slopes	PxB	Plainfield sand, 2 to 6 percent slopes
PxC	Plainfield sand, 6 to 12 percent slopes	PxC	Plainfield sand, 6 to 12 percent slopes
PxA	Plainfield sand, 0 to 2 percent slopes	PZA	Plainfield loamy sand, 0 to 2 percent slopes
RaB, RaA	Rawson sandy loam, 2 to 6 percent slopes	RaB	Rawson sandy loam, 2 to 6 percent slopes
Rb, Re, Mn, Bz, Wh	Rensselaer loam	Rb	Rensselaer loam

LAFARGE COUNTY, INDIANA --Continued

Field symbols	Field mapping unit name	Publication symbol	Approved mapping unit name
Se, Sf	Sebewa loam	Se	Sebewa loam
ShA, VoA, VoB, ExA	Shipshe sandy loam, 0 to 2 percent slopes	ShA	Shipshe sandy loam, 0 to 2 percent slopes
ShB	Shipshe sandy loam, 2 to 6 percent slopes	ShB	Shipshe sandy loam, 2 to 6 percent slopes
ShC, ShC2	Shipshe sandy loam, 6 to 12 percent slopes	ShC	Shipshe sandy loam, 6 to 12 percent slopes
On	Orthents, loamy	Ud	Udorthents, loamy
Wa	Wallkill silt loam	Wa	Wallkill silt loam
MfA, MfA	Miami sandy loam, 0 to 2 percent slopes	WeA	Wawasee fine sandy loam, 0 to 2 percent slopes
MfB, MfB2, MhB2, RtA, RtB	Miami sandy loam, 2 to 6 percent slopes	WeB	Wawasee fine sandy loam, 2 to 6 percent slopes
MfC2, MhC2, RtC2	Miami sandy loam, 6 to 12 percent slopes, eroded	WeC2	Wawasee fine sandy loam, 6 to 12 percent slopes, eroded
MfD2, MhD2, MhE2	Miami sandy loam, 12 to 18 percent slopes, eroded	WeD2	Wawasee fine sandy loam, 12 to 18 percent slopes, eroded
MkC3	Miami sandy clay loam, 6 to 12 percent slopes, severely eroded	WhC3	Wawasee loam, 6 to 12 percent slopes, severely eroded
MkD3	Miami sandy clay loam, 12 to 18 percent slopes, severely eroded	WhD3	Wawasee loam, 12 to 18 percent slopes, severely eroded
Wt	Whitaker sandy loam	Wt	Whitaker sandy loam

LaGrange County, Indiana

Series established by this correlation:

None

Series dropped or made inactive:

None

Join Statement:

The soil survey of LaGrange County, Indiana, joins the modern published soil surveys of Noble County, Indiana, and Elkhart County, Indiana, and the project soil survey of Steuben County, Indiana, of which the fieldwork has been completed and the correlation will be prepared shortly and the project soil survey of St. Joseph County, Michigan. In order to facilitate a reasonable join between LaGrange County, Indiana, and St. Joseph County, Michigan, copies of the sheets of the general soil maps that join Michigan have been forwarded to the State Office in Michigan. Michigan indicates their primary soil survey activities have been in the northern part of St. Joseph County but that they have reviewed the submitted material and anticipate no difficulty in joining with same.

A more detailed explanation of all discrepancies in the join of the detailed soil map and the general soil map with the three joining counties in Indiana is on file at the PSC Office and at the Indiana State Office. The differences are reasonable, and the counties are satisfactorily joined to the LaGrange County soil survey. The lines on the general soil maps join; but some of the names are different because of different proportions of components in map units, recognition of new series previously not separated in some of the older surveys, and differences in composition of soils within different survey areas.

The lines on the detailed soil maps join and similar series join, although a few areas have different names. These differences are the result of knowledge learned through further study of the soils, recognition of new series not previously separated in soil surveys, and the inclusion of small amounts of some soils with similar soils in one survey area which were separated in other surveys because of larger extent.

Soil survey interpretations have been coordinated, and those being used in this manuscript are in agreement with the latest information on the SCS-Soils-5 form.

The locations of the typical pedons have been checked to see that the locations are accurate and the sites are located within delineations of the named soil.

LaGrange County, Indiana

Cooperators:

The state soil scientist has certified that the following statements for the front cover and the third paragraph of the box inside the front cover shall read as follows for this soil survey:

- A. Outside Front Cover
United States Department of Agriculture
Soil Conservation Service
In Cooperation With
Purdue University Agricultural Experiment Station
- B. Inside Front Cover
This survey was made cooperatively by the Soil Conservation Service and the Purdue University Agricultural Experiment Station. It is part of the technical assistance furnished to the LaGrange County Soil and Water Conservation District.

Disposition of field sheets:

The original field sheets have been transferred to half tone positive mylars of the atlas sheets by a correlated legend. Blue line copies of these mylars have been made for fire protection. Overlays have been completed for all of the atlas sheets except for adding stickons for the symbols. Map finishing will be completed after approval of the final correlation. Half tone positive mylars are considered as the field sheets of this survey.

Instructions for Map Compilation:

As previously noted, the original field sheets have already been compiled on half tone positive mylars and overlays have been prepared. Therefore, the attached SCS-Soils-37A form furnishes a record of the "conventional and special symbol legend" that is shown as the legend on the published soil survey.

Soil Survey Area

CONVENTIONAL AND SPECIAL SYMBOLS LEGEND

Date: Oct 7, 1977

Muck spot

High Iron area. #

Approved: July 14, 1978

Maurice Stouff, Jr.

Maurice Stout, Jr.
Head, Soils Staff
Midwest TSC

CONVERSION LEGEND FOR
LAGRANGE COUNTY, INDIANA

Field symbol	Publication symbol	Field symbol	Publication symbol	Field symbol	Publication symbol	Field symbol	Publication symbol
Ad	Ad	HdC2	HdC	OsC	OsC	Wh	Rb
Am	Am	Ho	Ho	OsC2	OsC	Wt	Wt
Au	CrA	Hp	Ht	OsD	OsD		
AuA	CrA	Ht	Ht	OsD2	OsD		
BaA	BaA	Hu	Hw	OsE	OsE		
BoA	BoA	Hw	Hw	OsE2	OsE		
BoB	BoB	Hx	Hx	OtC2	OuC		
BoC	BoC	Ma	Hx	OuB	OuB		
BoC2	BoC	Ma	Mc	OuC	OuC		
BoD	BoD	Mb	Hx	OuC2	OuC		
BoD2	BoD	MbA	MbB	Pa	Pm		
Bp	Bp	MbB	MbB	Pm	Pm		
BSA	BtA	MbB2	MbB	PRA	PRA		
Bt	BaA	Mc	Mc	PRB	PRA		
BtA	BtA	MCA	MbB	Pt	Pt		
BxA	BxA	McB2	MbB	Pv	Pv		
Bz	Rb	Md	Gr	Pw	Pt		
ChA	ChB	MeA	MeB	PxA	PZA		
ChB	ChB	MeB	MeB	PxB	PxB		
ChC	ChC	MeC	MeC	PxC	PxC		
CrA	CrA	MfA	WeA	RaA	RaB		
Ed	Ed	MfB	WeB	RaB	RaB		
EW	Ed	MfB2	WeB	Rb	Rb		
ExA	ShA	MfC2	WeC2	Re	Rb		
FoA	BoA	MfD2	WeD2	RSA	HdA		
FoB	BoB	MhB2	WeB	RSB	HdB		
FoB2	BoB	MhC2	WeC2	RSC2	HdC		
FoC2	BoC	MhD2	WeD2	RtA	WeB		
FoD2	BoD	MhE2	WeD2	RtB	WeB		
FxC3	BoC	MkC3	WhC3	RtC2	WeC2		
FxD3	BoD	MkD3	WhD3	Se	Se		
Gf	Gf	MLA	WeA	Sf	Se		
Gm	Gf	Mn	Fb	ShA	ShA		
Gp	Pv	MoB2	MoB2	ShB	ShB		
Gr	Gr	MoC2	MoC2	ShC	ShC		
Ha	HAA	NaA	NaA	ShC2	ShC		
HAA	HAA	NaB2	NaA	Td	Gr		
HdA	HdA	On	Ud	VoA	ShA		
HdB	HdB	Osa	Osa	VoB	ShA		
HdC	HdC	OsB	OsB	Wa	Wa		

LaGrange County, Indiana

CLASSIFICATION OF PEDONS SAMPLED FOR LABORATORY ANALYSIS

*Purdue University Agricultural Experiment Station

<u>Series Name</u> <u>Sampled Under</u>	<u>File or</u> <u>Lab No.</u>	<u>Series Name</u> <u>Approved</u>
✓ Blount	LG7102	Nappanee
✓ Blount	882-888	Nappanee, taxadjunct
✓ Brems	LG7602	Brems, taxadjunct
✓ Brookston	LG7701	Rensselaer, taxadjunct
✓ Elston	LG7101	Elston, taxadjunct
✓ Fox	LG7308	Boyer
✓ Fox	LG7303	Boyer
✓ Howe	LG7206	Elston, taxadjunct
✓ Howe	LG7203	Shipshe, taxadjunct
✓ Hillsdale	LG7410	Hillsdale
✓ Hillsdale	LG7411	Hillsdale, taxadjunct
✓ Hillsdale	LG7409	Riddles
✓ Hillsdale	LG7413	Hillsdale, taxadjunct
✓ Miami	LG7602	Wawasee
✓ Miami	LG7601	Wawasee
✓ Morley	⁶ 483-466	Morley, taxadjunct
✓ Morocco	LG7601	Morocco
✓ Plainfield	LG7603	Tyner
✓ Plainfield	LG7604	Plainfield'
✓ Warsaw	LG7204	Shipshe, taxadjunct
✓ Warsaw	LG7205	Fox

* This is partial data and is not being placed in the National Pedon Data File. It is being listed in the correlation so that the pedons are classified correctly in the records available at Purdue University, Indiana State Office and the MTSC.

LaGrange County, Indiana

Notes to Accompany
Classification and Correlation
of the Soils of
LaGrange County, Indiana

by
Robert I. Turner

BLOUNT SERIES

These soils tend to be in the least clayey part of the range for the Blount Series.

CHELSEA SERIES

These soils contain somewhat more medium and coarser sized sand than typical for the Chelsea Series and they are also less acid in the upper 2 or 3 feet of the solum than typical for the Chelsea series.

GILFORD SERIES

Gilford soils tend to be in the thickest part of the range in solum thickness and the depths to loamy sand or coarser textures.

GRANBY SERIES

We note that as described in the manuscript, these soils lack structure and appear to lack a B horizon by commonly defined criteria. The presence or absence of the B horizon in these sandy soils is not critical to their classification in Soil Taxonomy.

HASKINS SERIES

These soils tend to have colors with higher chroma in the lower part of the solum and in the C horizon than typical for the Haskins Series.

HILLSDALE SERIES

These soils have ped surfaces with redder hue than typical for the Hillsdale Series.

HOMER SERIES

These soils are in the least acid part of the range for the Homer Series and tend to have less evidence of wetness than typical for the Homer Series.

METEA SERIES

The upper 2 feet of this soil is less acid than typical for the Metea Series. There are also a few coarse fragments in the upper part which at present are not allowed in the Metea Series. The series description should be updated and expanded to accommodate these properties.

MORLEY SERIES

These soils have slightly higher color value in the B horizon than typical for the Morley Series. In addition, these soils have shallower depths to mottles and are in the thinnest part of the range of solum thickness for the Morley Series.

LaGrange County, Indiana

NAPPANEE SERIES

These soils tend to be in the least clayey part of the range of the Nappanee Series and from that standpoint, it would appear marginal to the range apparently still allowed in the Blount Series. However, they do have clay contents in excess of 35 percent in the C horizon which is within depths of less than 40 inches and are much less productive than Blount soils in this survey area.

OSHTEMO SERIES

These soils are in the least acid part of the range for the Oshtemo Series.

PEWAMO SERIES

These soils tend to be in the least clayey part of the range for the Pewamo Series.

RAWSON SERIES

These soils are taxadjuncts to the Rawson Series because they contain less clay in the lower part of the B horizon and the C horizon than defined for the Rawson Series.

WALLKILL SERIES

These soils are taxadjuncts to the Wallkill Series because they contain less than 15 percent sand coarser than very fine sand in the mineral portion of the control section.

LaGrange County, Indiana

CLASSIFICATION OF THE SOILS

(An asterisk in the first column indicates a taxadjunct to the series. See notes for a description of those characteristics of this taxadjunct that are outside the range of the series)

Soil name	Family or higher taxonomic class
Adrian-----	Sandy or sandy-skeletal, mixed, euic, mesic Terric Medisaprists
Blount-----	Fine, illitic, mesic Aeric Ochraqualfs
Boyer-----	Coarse-loamy, mixed, mesic Typic Hapludalfs
Brady-----	Coarse-loamy, mixed, mesic Aquollic Hapludalfs
Brems-----	Mixed, mesic Aquic Udipsamments
Bronson-----	Coarse-loamy, mixed, mesic Aquic Hapludalfs
Chelsea-----	Mixed, mesic Alfic Udipsamments
Conover-----	Fine-loamy, mixed, mesic Udollic Ochraqualfs
Edwards-----	Marly, euic, mesic Limnic Medisaprists
Gilford-----	Coarse-loamy, mixed, mesic Typic Haplaquolls
Granby-----	Sandy, mixed, mesic Typic Haplaquolls
Haskins-----	Fine-loamy, mixed, mesic Aeric Ochraqualfs
Hillsdale-----	Coarse-loamy, mixed, mesic Typic Hapludalfs
Homer-----	Fine-loamy over sandy or sandy-skeletal, mixed, mesic Aeric Ochraqualfs
Houghton-----	Euic, mesic Typic Medisaprists
Martinsville-----	Fine-loamy, mixed, mesic Typic Hapludalfs
Martisco-----	Fine-silty, carbonatic, mesic Histic Humaquepts
Metea-----	Loamy, mixed, mesic Arenic Hapludalfs
Morley-----	Fine, illitic, mesic Typic Hapludalfs
Nappanee-----	Fine, illitic, mesic Aeric Ochraqualfs
Oshtemo-----	Coarse-loamy, mixed, mesic Typic Hapludalfs
Palms-----	Loamy, mixed, euic, mesic Terric Medisaprists
Parr-----	Fine-loamy, mixed, mesic Typic Argiudolls
Pewamo-----	Fine, mixed, mesic Typic Argiaquolls
Plainfield-----	Mixed, mesic Typic Udipsamments
*Rawson-----	Fine-loamy, mixed, mesic Typic Hapludalfs
Rensselaer-----	Fine-loamy, mixed, mesic Typic Argiaquolls
Sebewa-----	Fine-loamy over sandy or sandy-skeletal, mixed, mesic Typic Argiaquolls
Shipshe-----	Loamy-skeletal, mixed, mesic Typic Argiudoll's
Udorthents, loamy-----	Loamy, mixed nonacid, mesic Udorthents
*Wallkill-----	Fine-loamy, mixed, nonacid, mesic Thapto-Histic Fluvaquents
Wawasee-----	Fine-loamy, mixed, mesic Typic Hapludalfs
Whitaker-----	Fine-loamy, mixed, mesic Aeric Ochraqualfs